

# **Needham Downtown Streetscape Improvements**

## **Board of Selectmen Presentation Draft Concept Report**

**February 25, 2014**

## Downtown's History (GPA/Dedham Ave)





## Highland Ave circa 1935



## Great Plain Ave – unknown date





## Dedham Ave circa 1935



## Overall Project Goals

- ▶ **Improve Traffic – Committee described traffic as “broken”**
- ▶ **Improve Pedestrian Safety**
- ▶ **Improve Downtown Aesthetics**

## Committee Goal

- ▶ **Promote economic growth through an environment that is:**
  - **Safe**
  - **Accessible**
  - **Aesthetically Pleasing**
  - **Pedestrian Friendly**

# Project Approach

## ▶ Two Pronged Approach

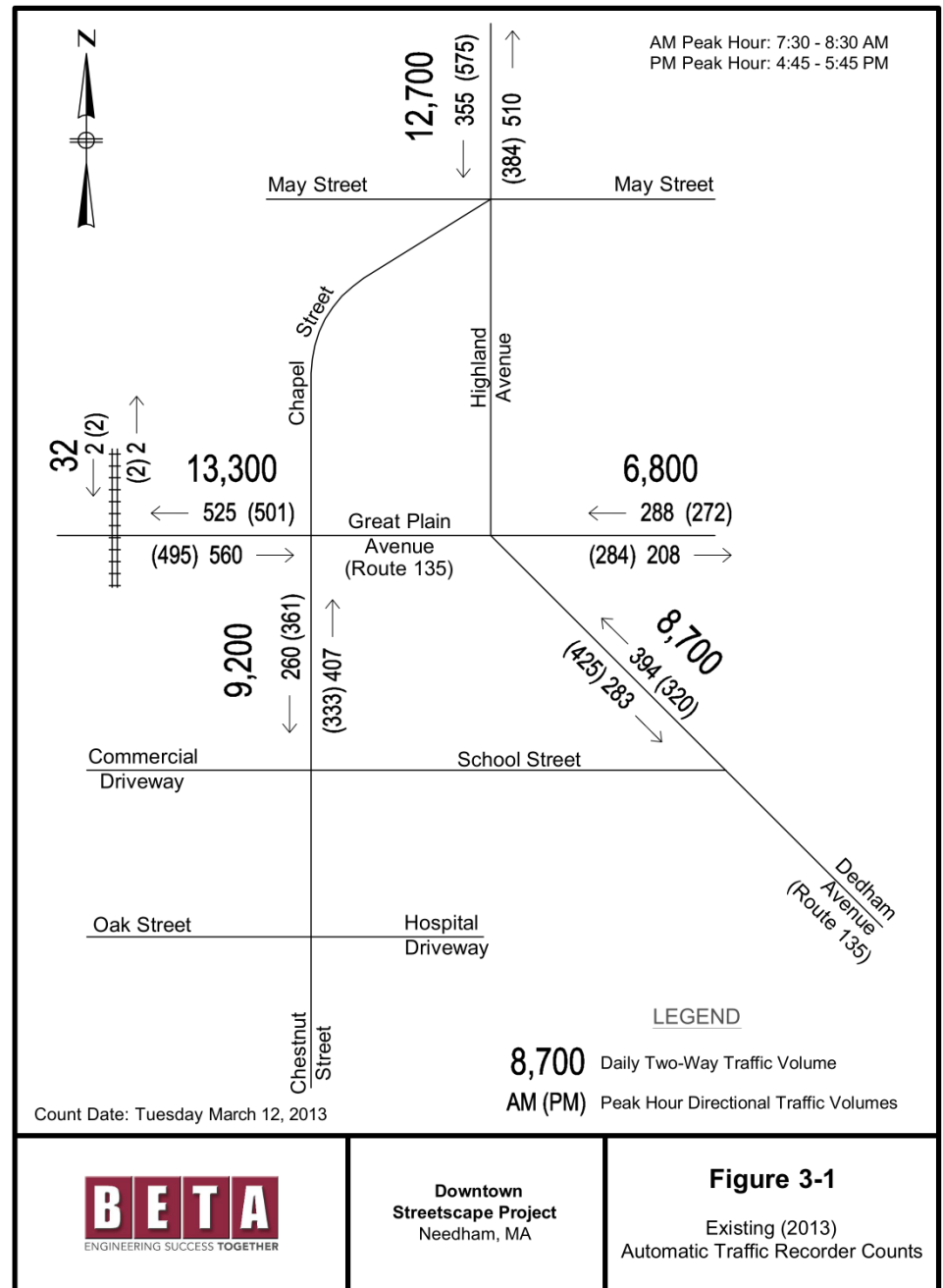
- Investigate Traffic and Streetscape concurrently
  - Traffic to collect data on existing conditions
  - Create a computer model of existing conditions
  - Develop alternatives to improve traffic
- Streetscape to collect existing conditions
- Determine what gives the Downtown its character
- Investigate the 5 Downtown areas (Theater, Common, Chestnut, Post Office, Chapel)
- Develop Unifying elements
- Create a concept for improving pedestrian safety and Downtown aesthetics.



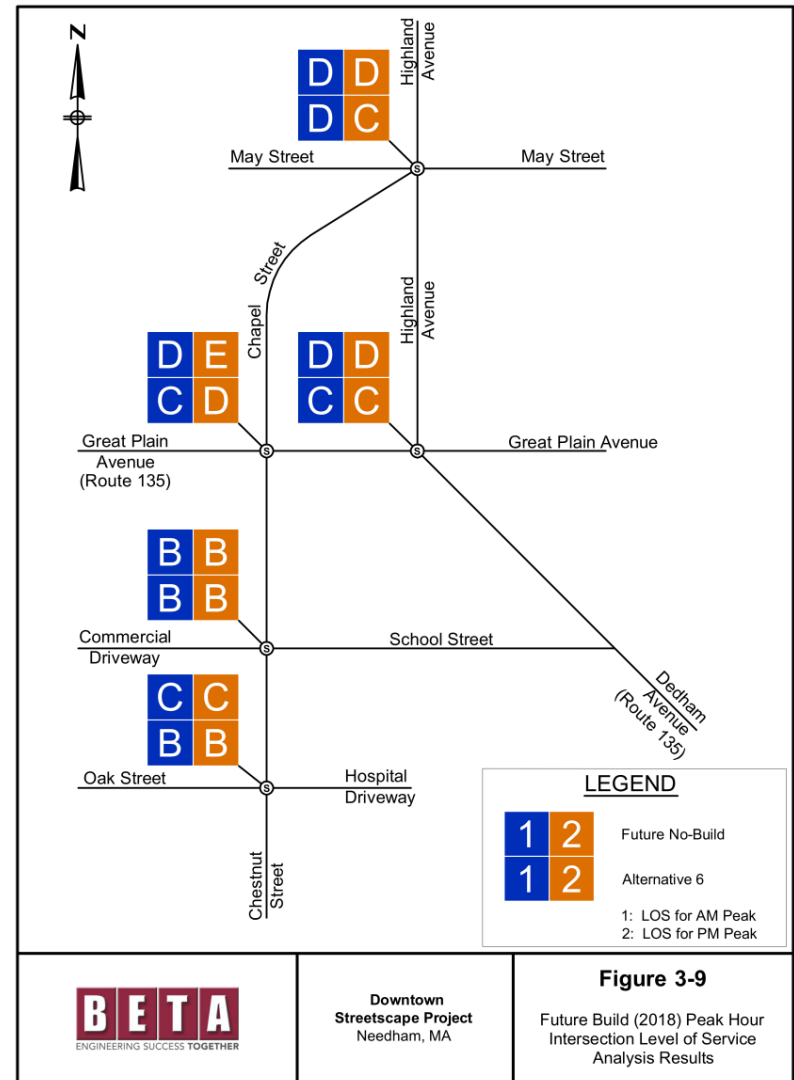
# Traffic

- ▶ Improved Signals/Coordination
- ▶ Improved Railroad Preemption
- ▶ Crosswalks/Bump outs
- ▶ Bike Access
- ▶ On-Street Parking

# Existing Traffic Flow



# Downtown Intersection LOS



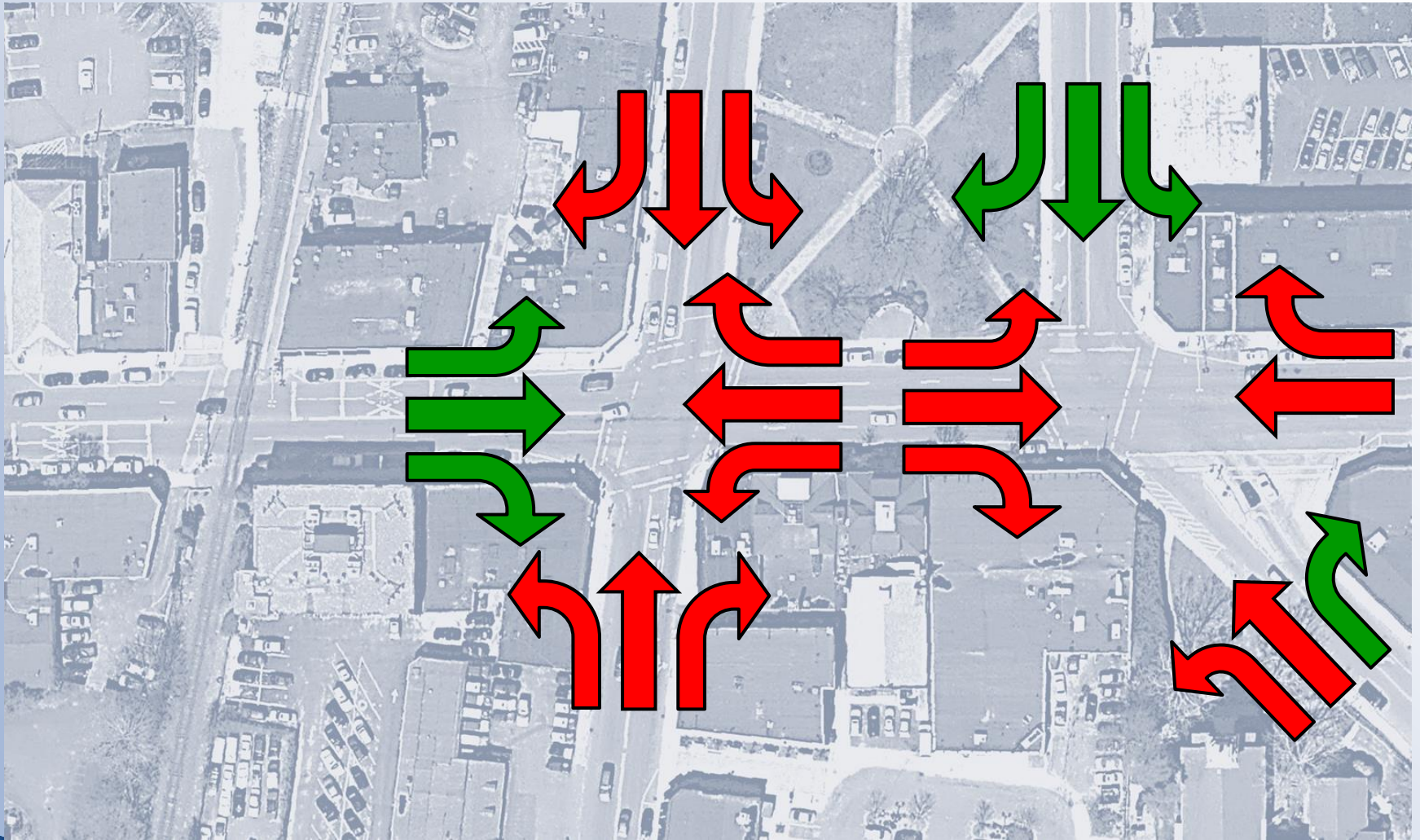


# Railroad Preemption



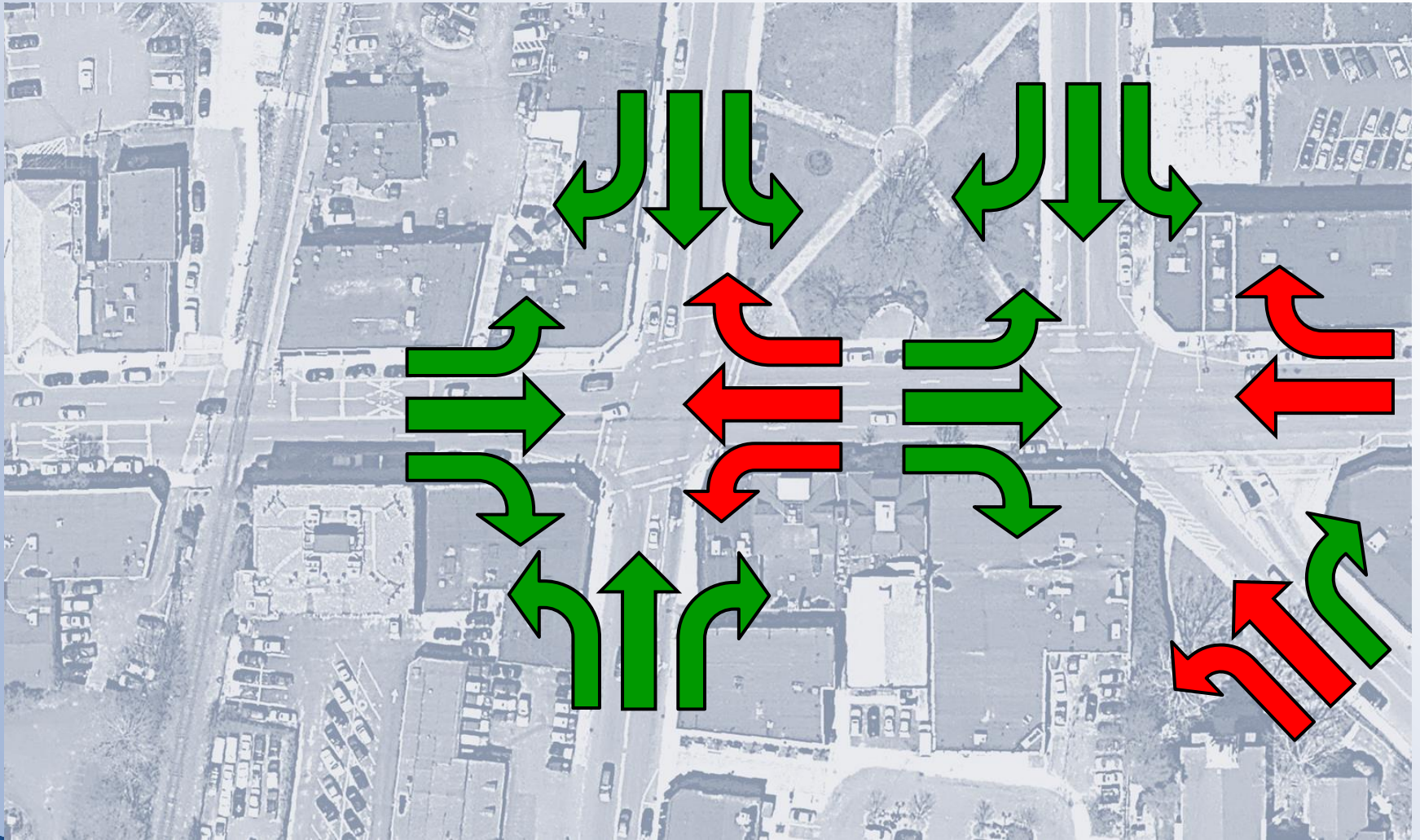


# Traffic Movement During Current Railroad Preemption



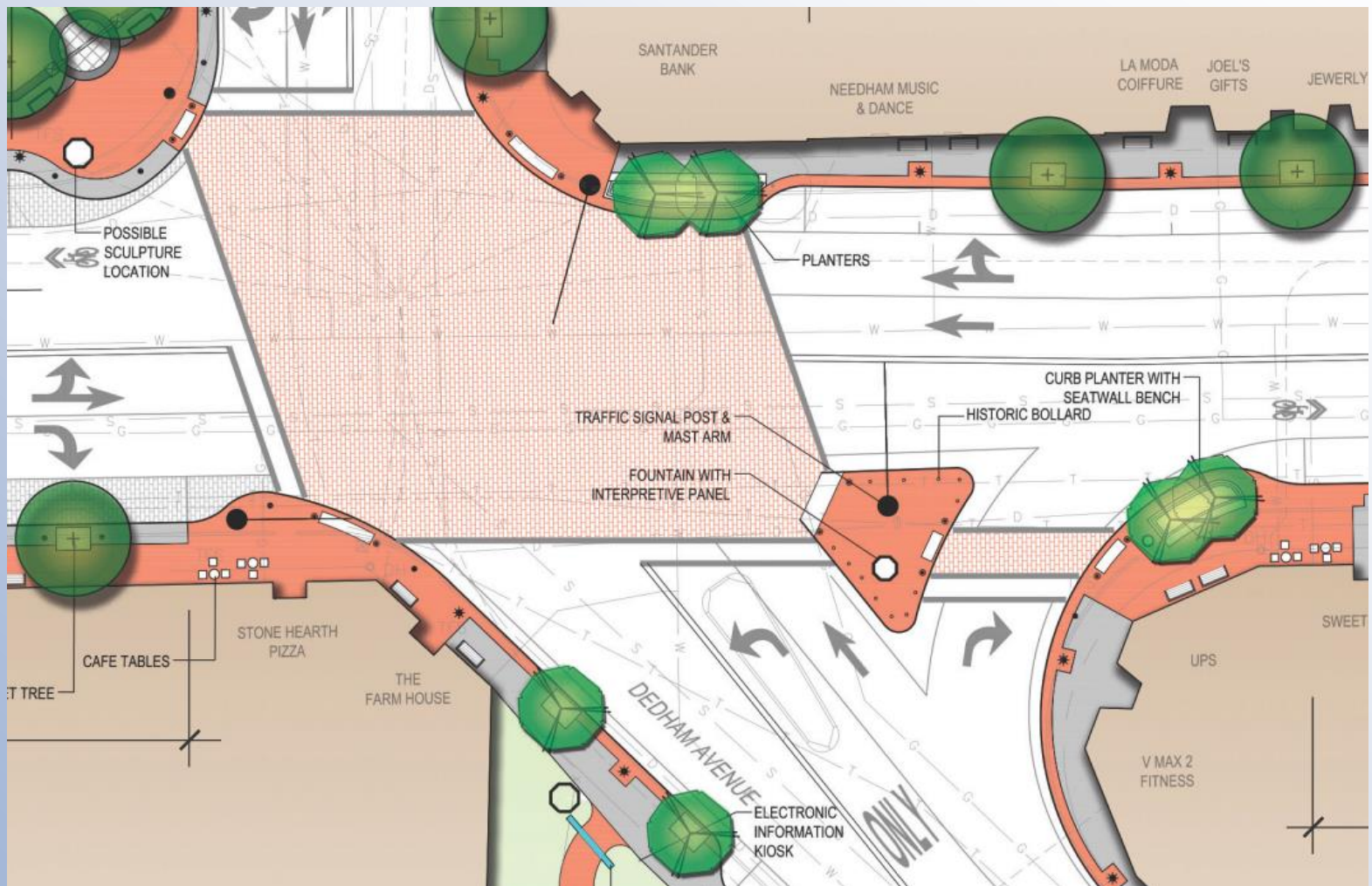


# Traffic Movement During Future Railroad Preemption

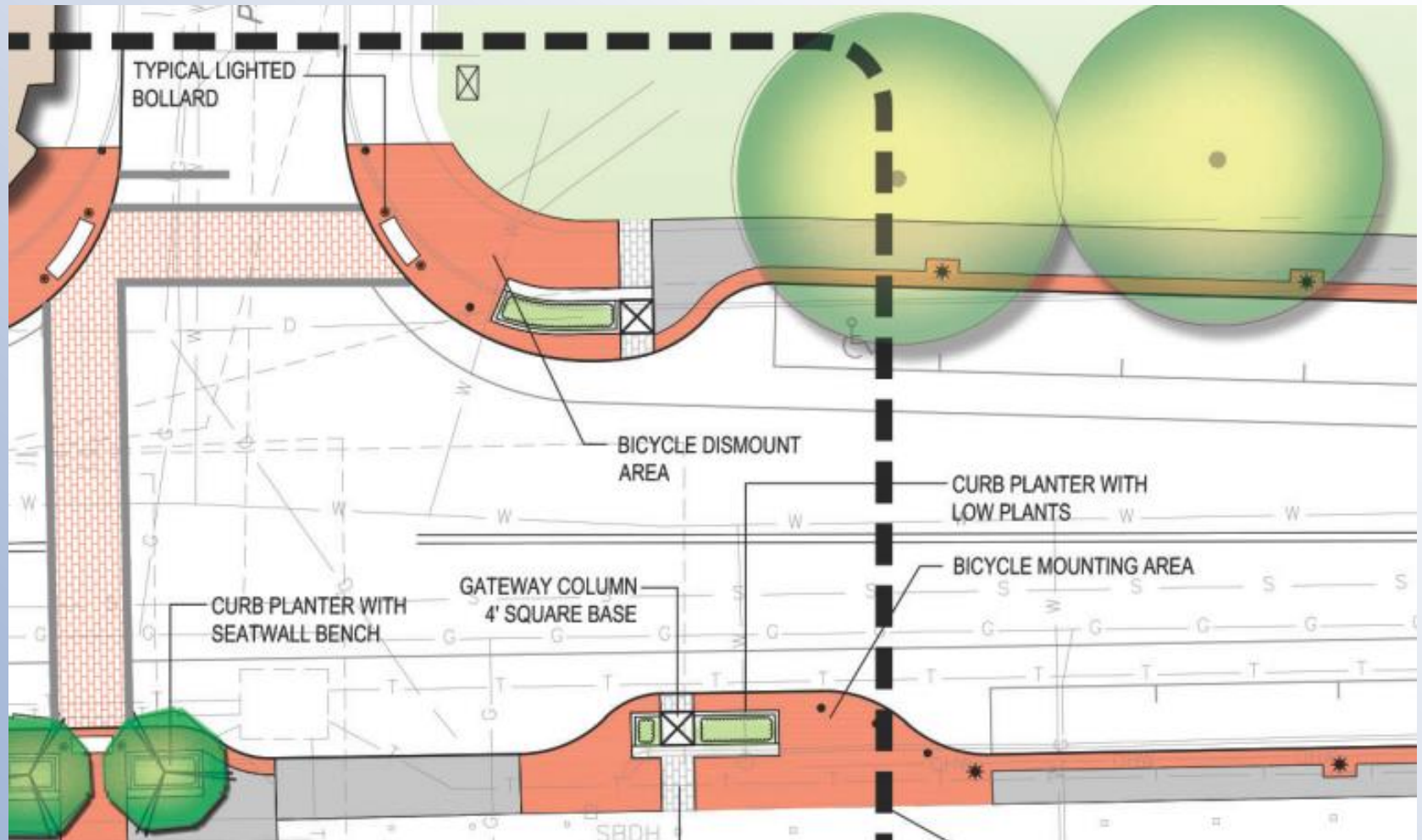




# Crosswalks/Bump Outs



# Bike Accomodations



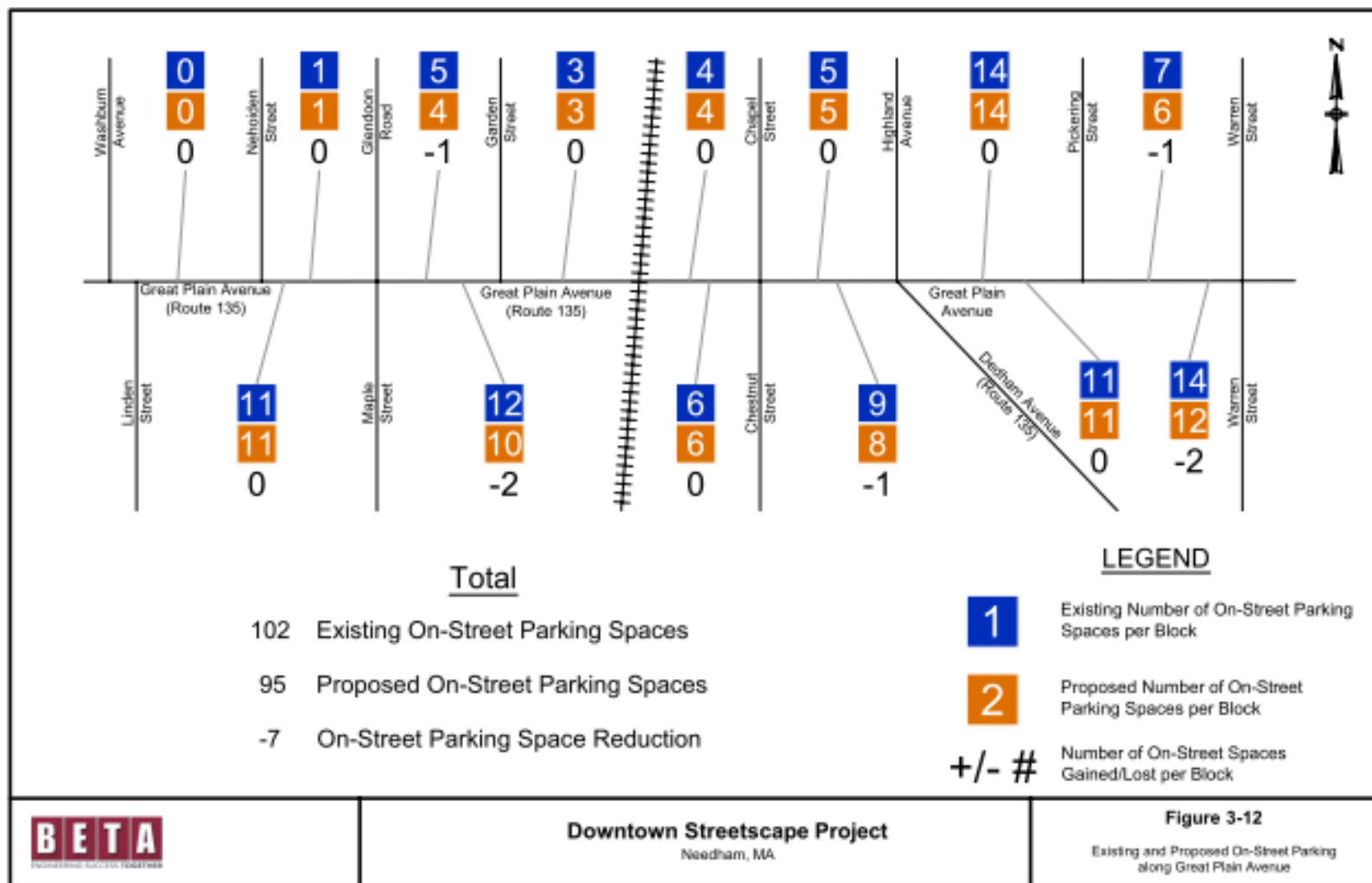


# Recommended Traffic Plan





# Downtown On-Street Parking Allocation



# Handicap Parking Locations



# Streetscape

- ▶ Town Common
- ▶ Crosswalks/Bump outs
- ▶ Gateways
- ▶ Gathering Areas
- ▶ Furniture
- ▶ Trees
- ▶ Sculptures
- ▶ Lighting



# Elements that unify can allow for subtle unique differences.



- Existing metal work draws from Needham Town Hall (left). This can be continued with new (right).



# Town Common at Great Plain Avenue



**Town Hall and Common Aerial Photograph.**



**Corner of Great Plain and Chapel St. above  
and Highland Ave. below.**



**View along Great Plain Avenue.**



# PAVING

## Concrete and Exposed Aggregate Concrete



# PAVING

## Brick





# PAVING Granite Pavers



# PAVING

## Crosswalks





# SITE FURNISHINGS



# SITE FURNISHINGS

## Ornamental Metal/Art





# ORNAMENTAL LIGHTING

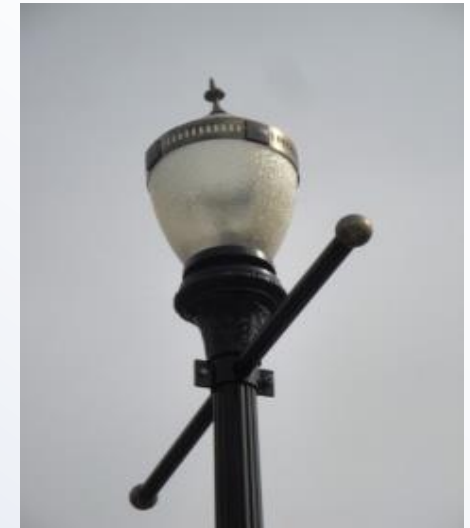


Typical ornamental post with banner arm on Chapel Street.

- Globe fixture with ornamental black fluted iron post currently on most streets except Great Plain Ave.
- Current Globe Light fixture has low pressure sodium bulbs (yellow light).
- Uniformity in banner size important- better to be perpendicular to road where feasible.
- Possibility to use LED on Great Plain Ave but should match light color



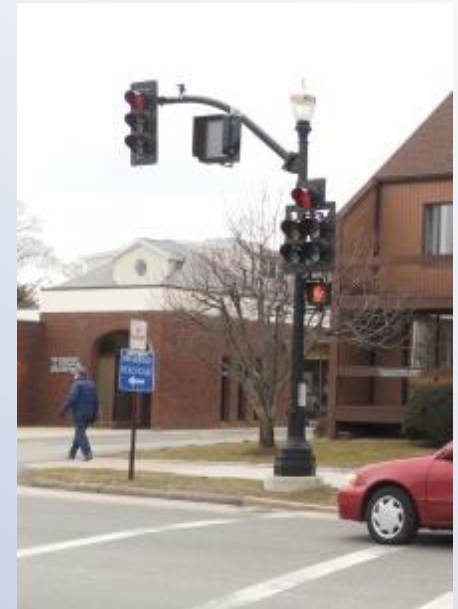
Ornamental lighting on Chapel St.



Typical globe light fixture.



Banner arm perpendicular to Street.



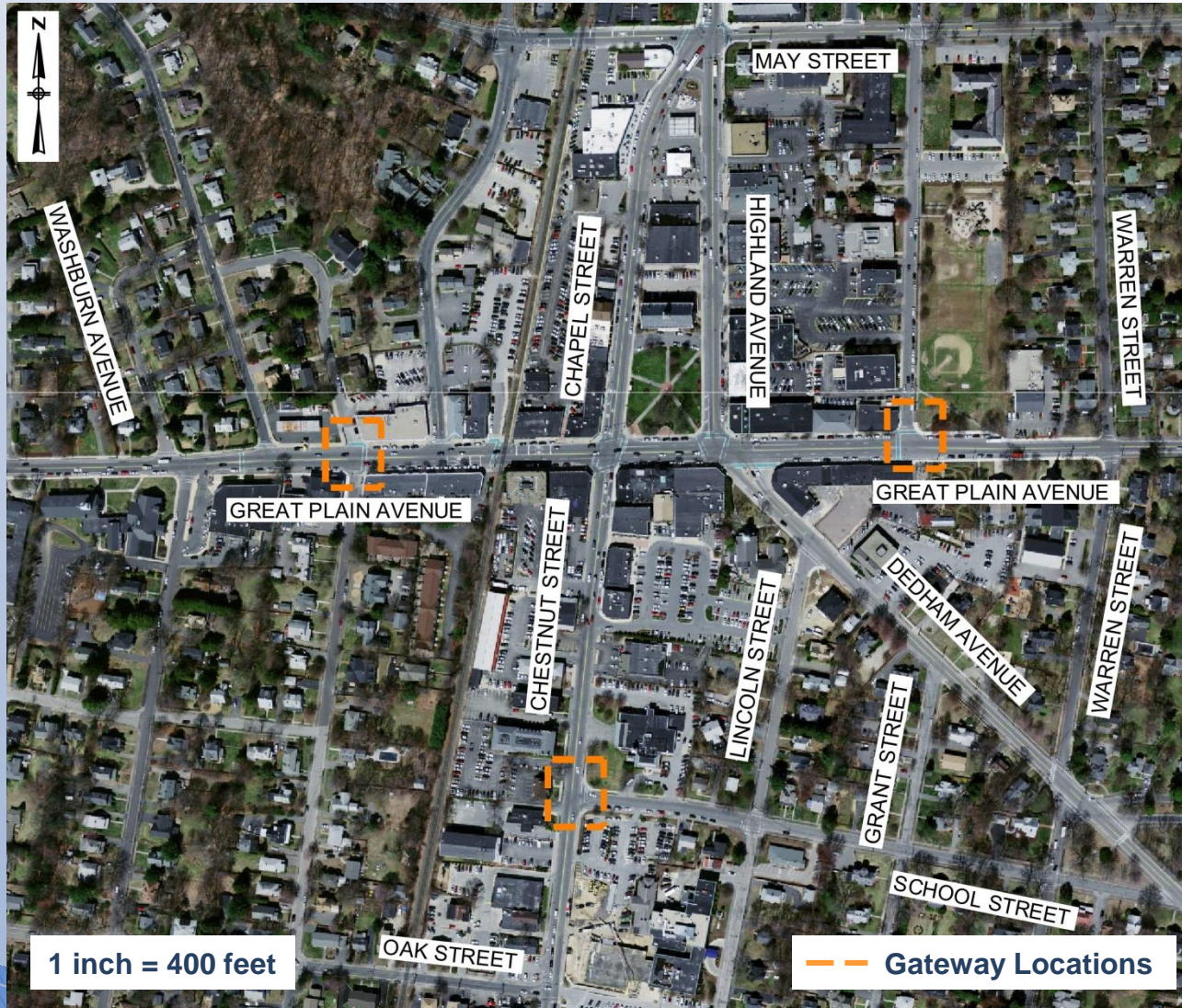
Ornamental post traffic light with acorn globe on Chestnut Street.

# TREE PIT/GRATE





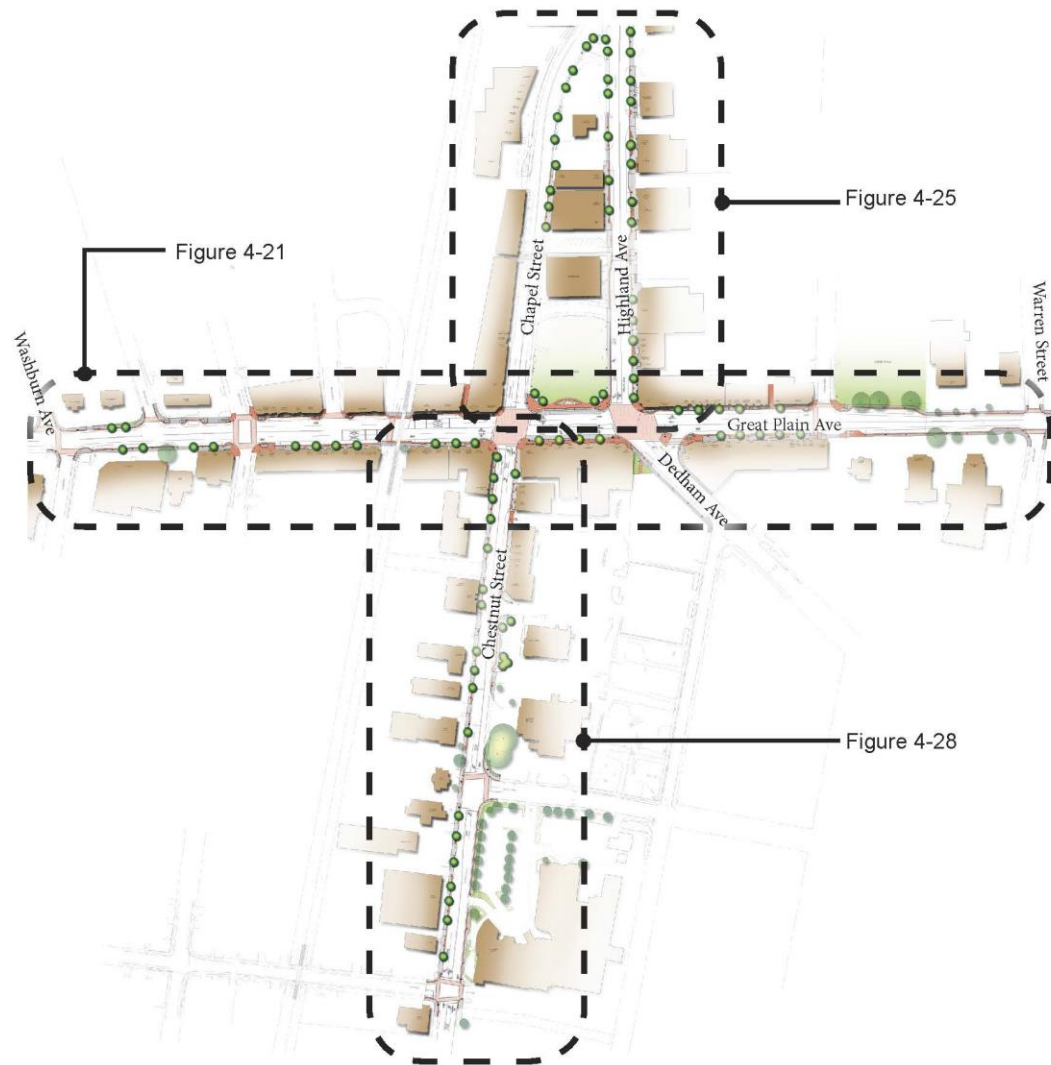
# Gateway Locations



# Concept Plans

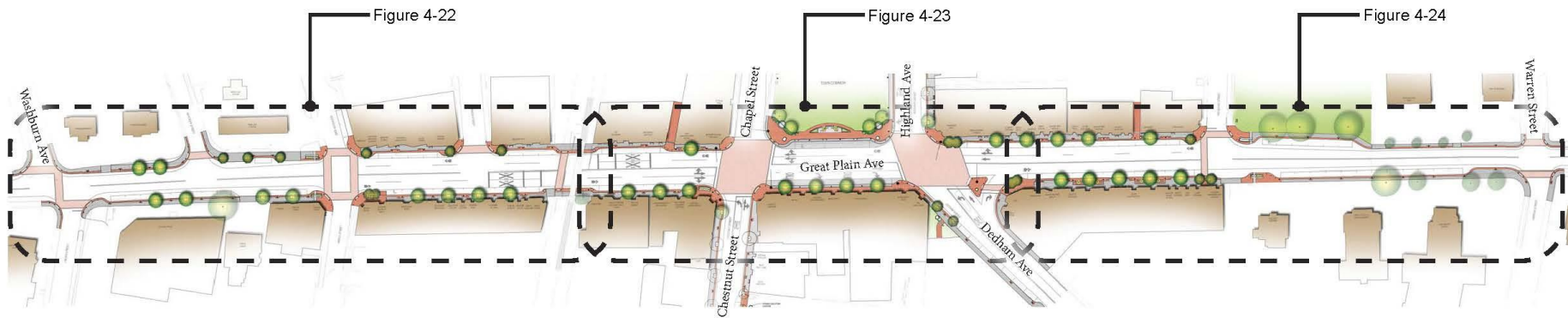
- **Contained in Draft Report**
- **Figures 4-20 to 4-30**
- **Will review quickly then switch to full concept plans**





Key Plan  
Needham, Massachusetts

Figure 4-20  
Scale: N.T.S.

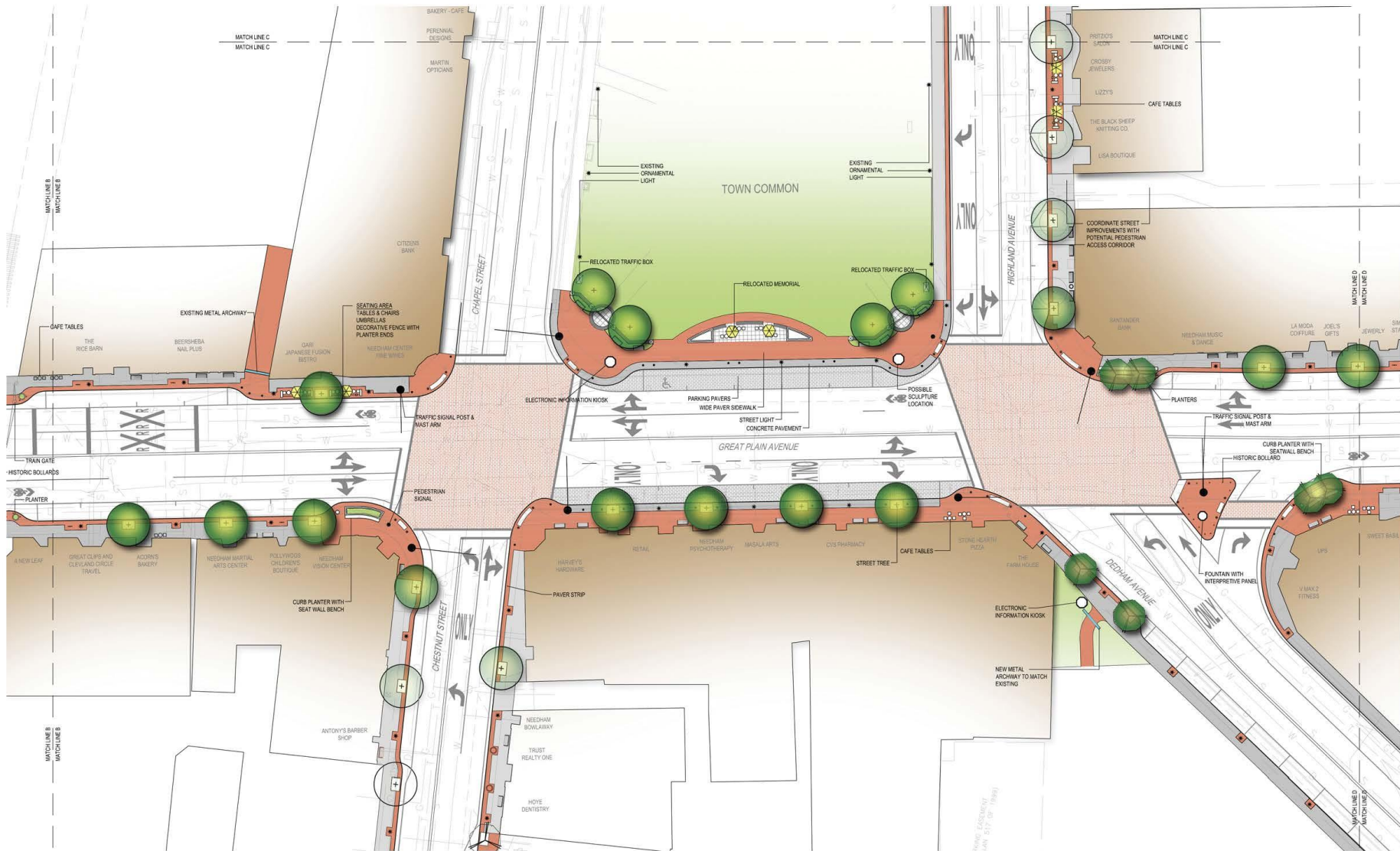


Great Plain Ave  
Needham, Massachusetts

Figure 4-21 **BETA Group, Inc.**  
Engineers • Planners • Landscape Architects  
Lincoln, RI • Norwood, MA • Hartford, CT  
Scale: N.T.S.







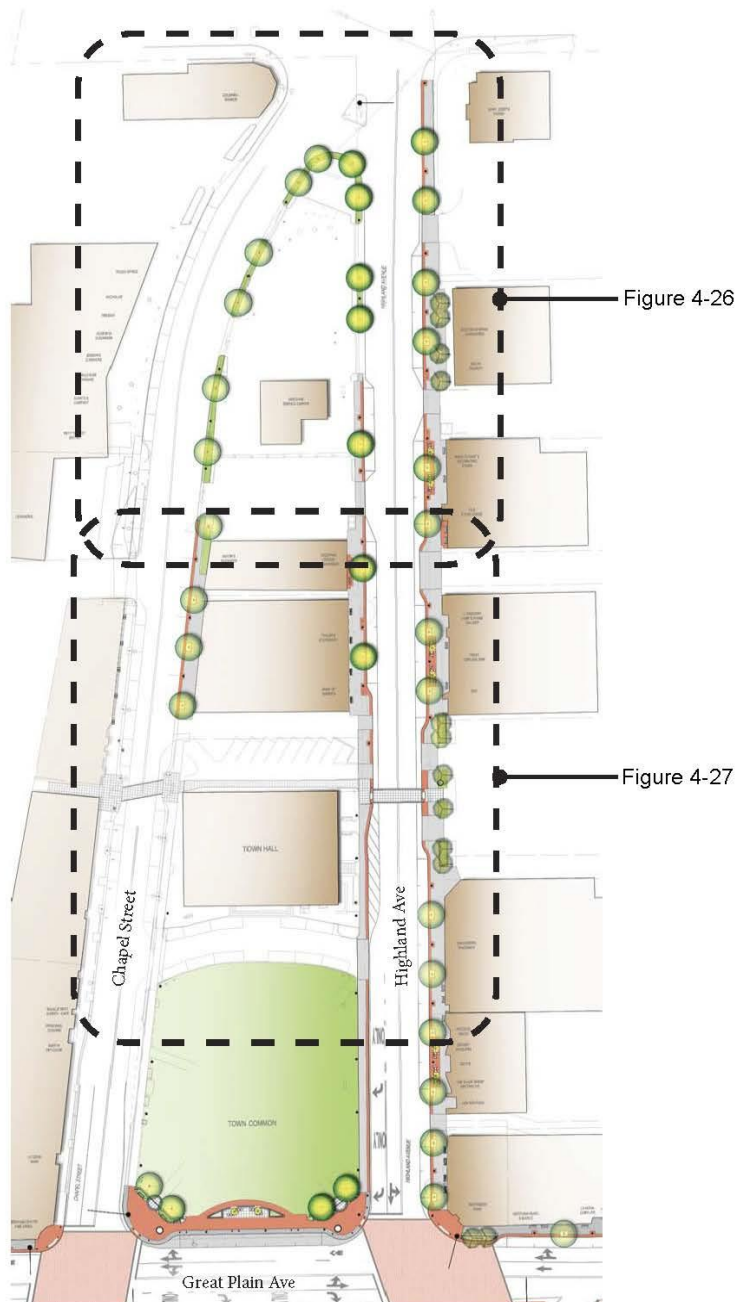
Great Plain Ave  
Needham, Massachusetts

Figure 4-23 **BETA Group, Inc.**  
Engineers • Planners • Landscape Architects  
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Scale: 1" = 40'-0"







Highland Ave

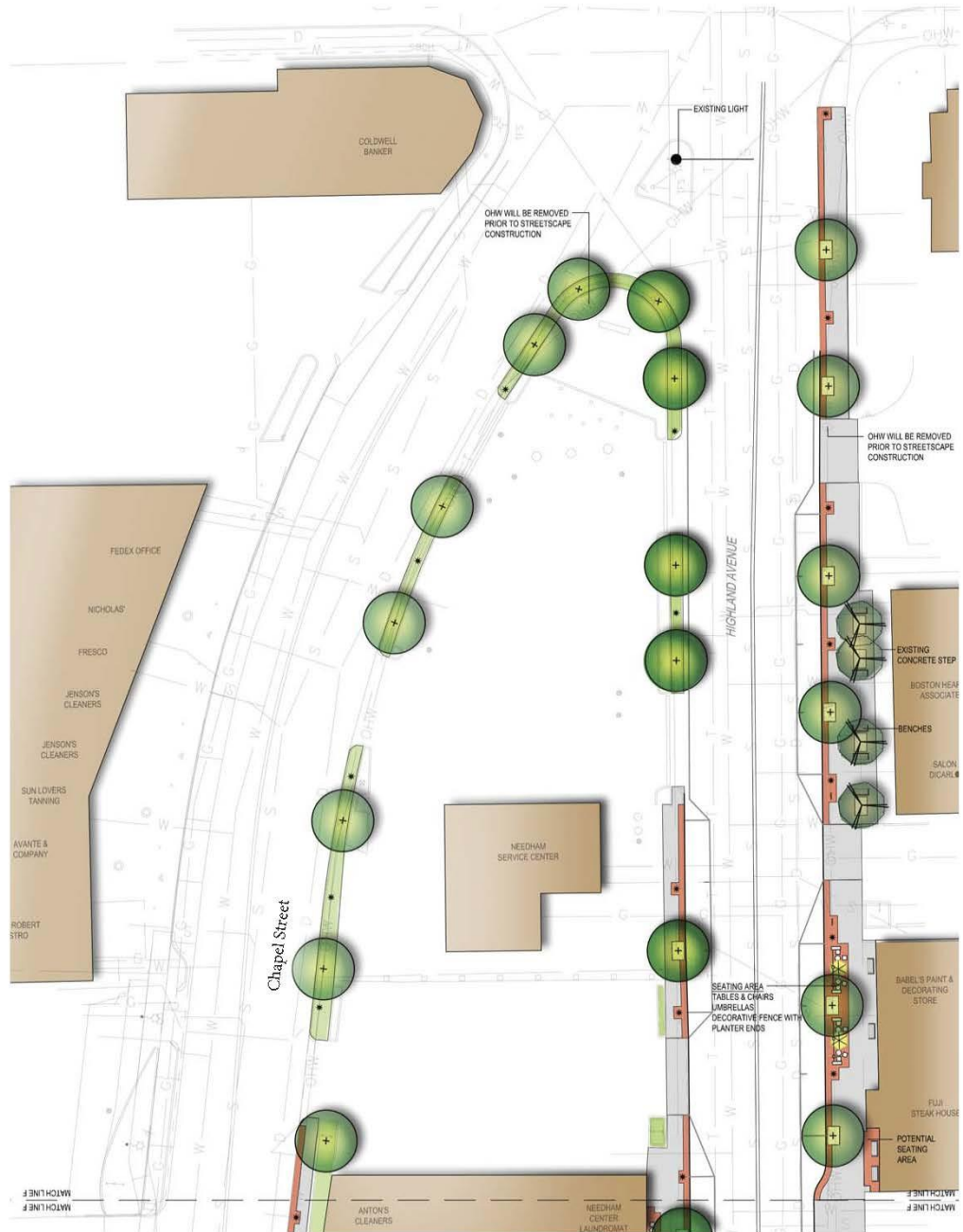
Needham, Massachusetts

Figure 4-25

Scale: N.T.S.

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Highland Ave

Needham, Massachusetts

Figure 4-26

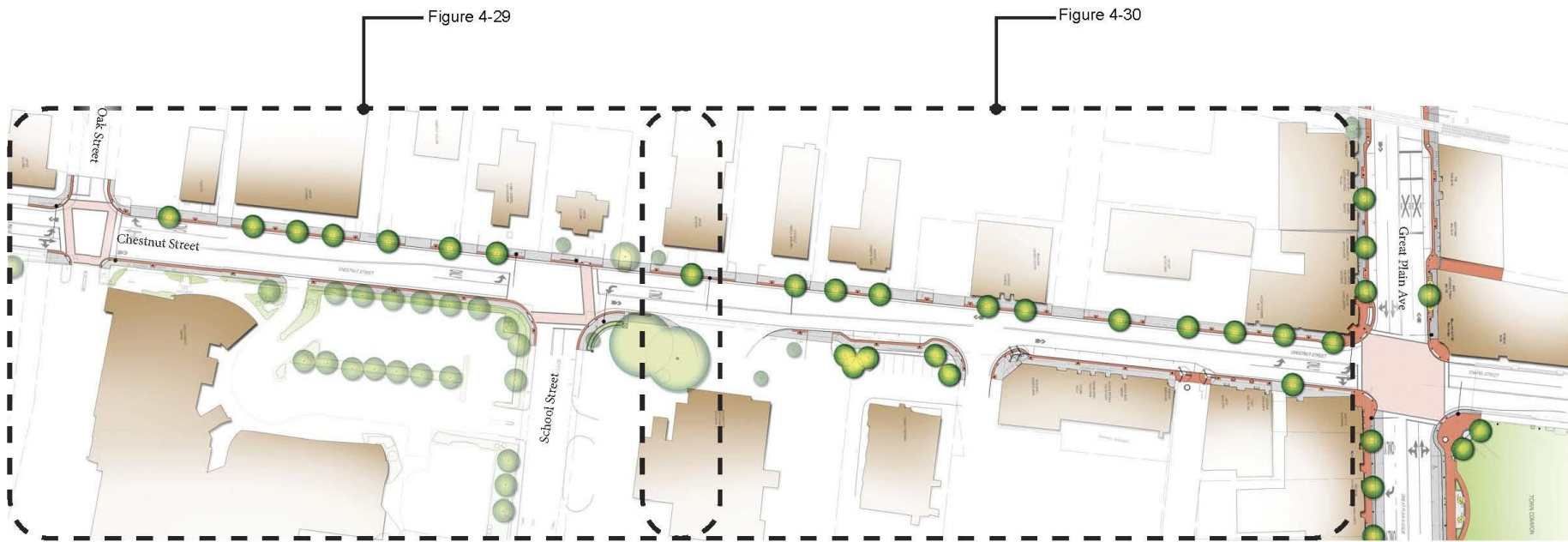
Scale: 1" = 40'-0"

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Chestnut Street  
Needham, Massachusetts

Figure 4-28  
Scale: N.T.S.

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Great Plain Ave  
Needham, Massachusetts

Figure 4-29 **BETA Group, Inc.**  
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Scale: 1" = 40'-0"

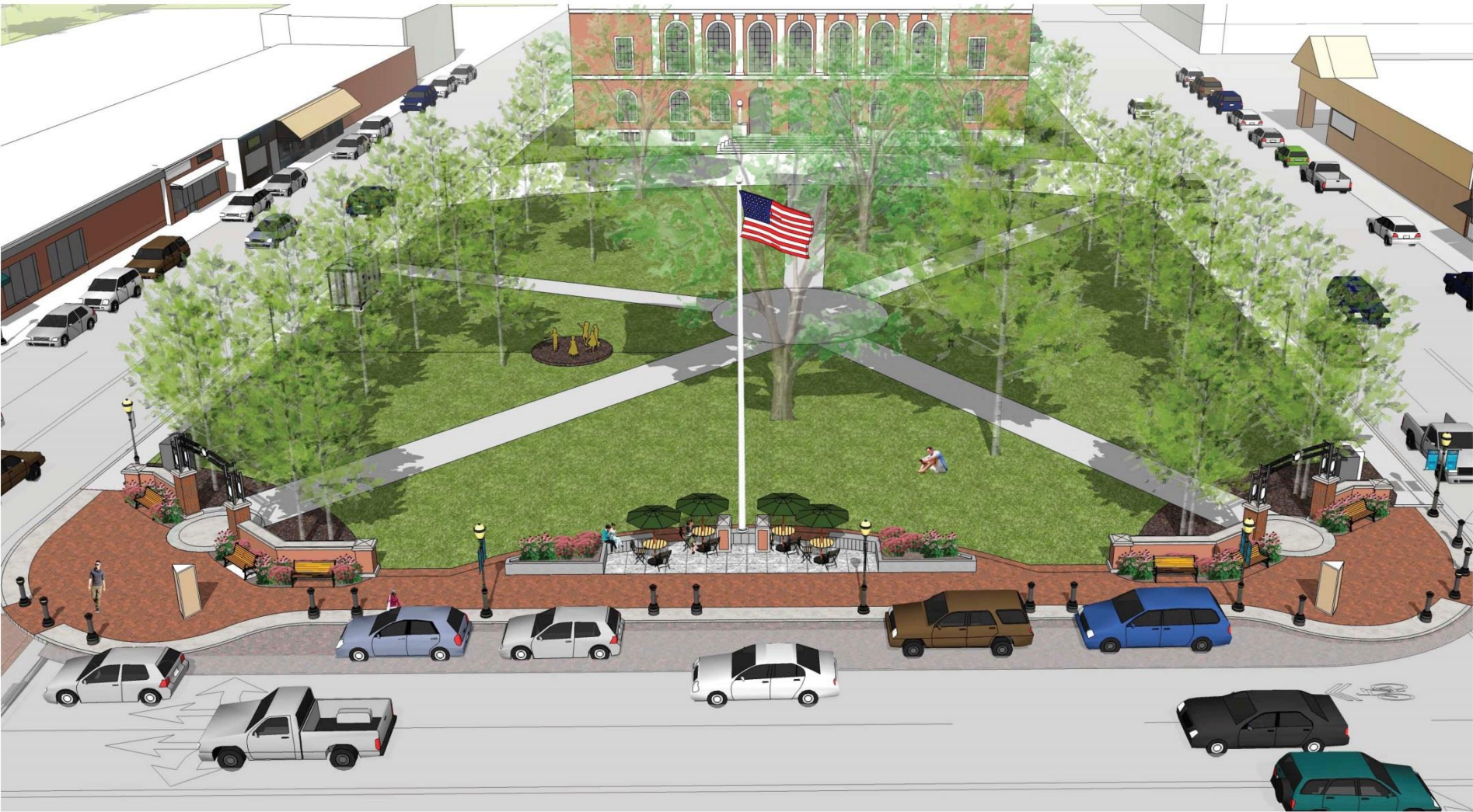




# Perspectives

**Town Common  
Gateway  
Seating Area**





Needham Center  
Needham, Massachusetts

Streetscape Improvements  
December - 2013

**BETA Group, Inc.**  
Engineers & Planners & Landscape Architects  
1000 W. Broadway, Suite 100, Portland, ME 04101

**BETA**





Needham Center  
Needham, Massachusetts

Streetscape Improvements  
December - 2013

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1000 N. 17th Street, Suite 200, Arlington, VA 22209-4411

**BETA**





Needham Center  
Needham, Massachusetts

Streetscape Improvements  
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Needham, Massachusetts

Streetscape Improvements  
December - 2013

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1000 W. Main Street, Suite 200, Portland, ME 04101

**BETA**



# Other Considerations

**Project Phasing**

**Funding – Chapter 90**

**Public Education**

**Undergrounding Utilities**

**Drainage**

**Easements**

# Questions??